IN THE CLAIMS:

1   1.   An interactive TV contextual content surfing system comprising:

2   a)   creating apparatus, which creates program content for hyperlinking to

3   other program content;

4   b)   Broadcast apparatus which broadcast interactive TV program content with

5   hyperlinks to other content;

6   c)   receiver apparatus which receives and processes the interactive TV

7   program content with hyperlinks for display to a viewer; and

8   d)   enabling apparatus, which enables a viewer to hyperlink from a program

9   being viewed to a related program.

1   2.   The system of Claim 1 further wherein the enabling apparatus enables the viewer

2   to hyperlink from a scheduled or recorded program to a related program.

1   3.   The system of Claim 1 further wherein the enabling apparatus enables the viewer

2   to hyperlink to a recording dialog when a related program may be in progress, previously

3   recorded or scheduled or broadcast in the future.

1   4.   The system of Claim 1 further comprising:

2   g)   broadcast apparatus which transmits audio/video program content and

3   program classification, together or in separate channels to the receiver; and

4   h)   control apparatus, which enables the viewer to interact with the program

5   content and the program classification.

1   5.   The system of Claim 1 further comprising:

2   i)   control apparatus at the receiver which groups program content by

3   deduction based on viewer TV habits or information provided by the viewer.

1   6.   The system of Claim 1 further comprising:

2   J)   receiver apparatus which providesalternative hyperlinking of program

3   content.

1   7.   An interactive TV contextual content surfing system using inter-channel

2   hyperlinking, comprising:

3   (a)   a content creation station generating and transmitting interactive program

4   information and classification information in a data streaming format;

5   (b)   a TV broadcast station for receiving the streaming data;

6   (c)   a broadcast server for processing classification categories in the streaming

7   data and hyperlinking program information in related categories;

8   (d)   a network coupled to the TV broadcast station for transmitting in separate

9   channels the TV program information and classification information to a local TV station for

10   retransmission to TV devices equipped with set-top boxes or directly transmitting the program

11   information directly to the set-top boxes; and

12   e)   viewer means including an interface enabling a viewer to view a program

13   in a category and using a hyperlink to switch to a new program related to the one being viewed.

1   8   The system of Claim 7 further comprising:

2   (f)   storing apparatus included in the broadcast server and stores a dynamic

3   table of correspondence between TV program categories and TV channel numbers.

1   9.   The system of Claim 7 further comprising:

2   (g)   server apparatus which creates a hyperlink list of channels that are

3   broadcasting the same nature of programs by referencing the correspondence table.

1   10.   The system of Claim 7 further comprising:

2   (h)   server apparatus which transmits the hyperlink information to the set-top

3   box on a separate channel.

1   11.   The system of Claim 7 further comprising:

2   .   (i)   set-top box apparatus which stores TV broadcasts by categories of

3   programs in a first classification table.

1   12.   The system of Claim 7 further comprising:

2   (j)   set-top box apparatus which stores categories of program in a TV program

3   guide in a second classification table.

1   13.   The system of Claim 7 further comprising:

2   k)   local storing apparatus in the set-top box which stores recorded programs

3   and classifies categories of programs in a third classification table.

1   14.   A method for interactive TV contextual content surfing using inter-channel

2   hyperlink, comprising the steps of:

3   a)   creating program content including a description of program type,

4   producers, players, etc., for classification purposes;

5   b)   transmitting the program content in a streaming data format to a broadcast

6   station and a broadcast server;

7   c)   generating a correspondence table between TV program categories and

8   TV channel numbers in the broadcast server;

9   d)   creating a hyperlink information of channels that are broadcasting the

10   same nature of programs by referencing the correspondence table;

11   e)   broadcasting the hyperlink information to the list of channels in the

12   correspondence table;

13   f)   transmitting the broadcast program information to a TV device including a

14   set-top box via a first channel;

15   g)   transmitting the hyperlinking information to the set-top box via a second

16   channel; and

17   h)   processing the broadcast hyperlinking information by the set-top box for

18   display on a TV screen.

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1   15.   The method of Claim 14 further comprising the step of

2   i)   selecting a program to view in a category and hyperlinking to another

3   program in the category.

1   16.   The method of Claim 14 further comprising the step of

2   j)   creating a hyperlink list of channels that are broadcasting the same nature

3   of programs by referencing the correspondence table.

1   17.   The method of Claim 14 further comprising the step of

2   k)   storing a dynamic table of correspondence between TV program

3   categories and TV channel numbers.

1   18.   The method of Claim 14 further comprising the step of:

2   l)   storing recorded programs in a local storage and classifying categories of

3   programs in local storage in a third classification table.

1   19.   The method of Claim 14 further comprising the step of:

2   m)   storing TV broadcasts by categories of programs in a first classification

3   table including a TV program guide in the set-top box.

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1   20.   The method of Claim 14 further comprising the step of:

2   n)   transmitting in separate channels the TV program information and

3   classification information to a local TV station for retransmission to TV devices equipped with

4   set-top boxes or directly transmitting the program information directly to the set-top boxes.

1   21.   The method of Claim 14 further comprising the step of:

2   o)   generating and transmitting interactive program information and

3   classification information in a data-streaming format.

1   22.   A program medium, executable in a computer system for interactive TV

2   contextual content surfing using inter-channel hyperlink, comprising:

3   a)   program instructions in the medium which creates program content

4   including a description of program type, producers, players, etc., for classification purposes;

5   b)   program instructions in the medium which transmit the program content in

6   a streaming data format to a broadcast station and a broadcast server;

7   c)   program instructions in the medium which generates a correspondence

8   table between TV program categories and TV channel numbers in the broadcast server;

9   d)   program instructions in the medium, which creates a hyperlink

10   information of channels that are broadcasting the same nature of programs by referencing the

11   correspondence table;

12   e)   program instructions in the medium, which broadcasts the hyperlink

13   information to the list of channels in the correspondence table;

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14   f) program instructions in the medium, which transmits the broadcast,

15 program information to a TV device including a set-top box via a first channel;

16   g) program instructions in the medium which transmits the hyperlinking

17 information to the set-top box via a second channel; and

18   h) program instructions in the medium which processes the broadcast

19 hyperlinking information by the set-top box for display on a TV screen.

1   23. The program medium of Claim 22 further comprising:

2   i) selecting a program to view in a category and hyperlinking to another

3 program in the category.

1   24. The program medium of Claim 22 further comprising:

2   j) creating a hyperlink list of channels that are broadcasting the same nature

3 of programs by referencing the correspondence table.

1   25. The program medium of Claim 22 further comprising:

2   k) storing a dynamic table of correspondence between TV program

3 categories and TV channel numbers.

1   26. The program medium of Claim 22 further comprising:

2   l) storing recorded programs in a local storage and classifying categories of

3 programs in local storage in a third classification table.

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1   27.   A program medium, executable in an interactive TV computer system for

2   contextual content surfing, comprising:

3   a)   program instructions which create program content for hyperlinking to

4   other program content;

5   b)   program instructions which broadcast interactive TV program content

6   with hyperlinks to other content;

7   c)   program instructions which receives and processes the interactive TV

8   program content with hyperlinks for display to a viewer; and

9   d)   program instructions, which enables the viewer to hyperlink from a

10   program being viewed to a related program.

1   28.   The program medium of Claim 27 further comprising:

2   e)   program instructions, which enables a viewer to hyperlink from a

3   scheduled or recorded program to a related program.

1   29.   The program medium of Claim 27 further comprising:

2   f)   program instructions which enables a viewer to hyperlink to a recording

3   dialog when a related program may be in progress, previously recorded or scheduled or

4   broadcast in the future.

1   30.   The program medium of Claim 27 further comprising:

2   g)   program instructions which broadcasts audio/video program content and

3   program classification, together or in separate channels to the receiver; and

4   h)   program instructions, which enables the viewer to interact with the

5   program content and the program classification.

1   31.   The program medium of Claim 27 further comprising:

2   i)   program instructions which groups program content at the receiver by

3   deduction based on viewer TV habits or information provided by the viewer.

1   32.   The program medium of Claim 27 further comprising:

2   j)   program instructions, which provides alternative hyperlinking of program

3   content.

1   33.   A method for contextual content surfing in an interactive TV computer system,

2   comprising the steps of:

3   a)   creating program content for hyperlinking to other program content;

4   b)   broadcasting interactive TV program content with hyperlinks to other

5   content;

6   c)   receiving and processing the interactive TV program content with

7   hyperlinks for display to a viewer; and

8   d)   enabling the viewer to hyperlink from a program being viewed to a related

9   program.

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1   34.   The method of Claim 33 further comprising the step of:

2   e)   enabling a viewer to hyperlink from a scheduled or recorded program to a

3   related program.

1   35.   The method of Claim 33 further comprising the step of:

2   f)   enabling a viewer to hyperlink to a recording dialog when a related

3   program may be in progress, previously recorded or scheduled or broadcast in the future.

1   36.   The method of Claim 33 further comprising the step of:

2   g)   broadcasting audio/video program content and program classification,

3   together or in separate channels to the receiver; and

4   h)   interacting with the program content and the program classification.

1   37.   The method of Claim 33 further comprising the step of:

2   i)   grouping program content at the receiver by deduction based on viewer

3   TV habits or information provided by the viewer.

1   38.   The method of Claim 33 further comprising the step of:

2   J)   providing alternative hyperlinking of program content.

1   39.   A broadcast server in a TV system, comprising:.

2   a)   a correspondence table storing means for a dynamic table of

3   correspondence between TV program categories and TV channels number;

4   b)   creation means for hyperlinking information which contains a list of

5   channels broadcasting the same nature of program by referencing the correspondence table, and

6   c)   transmitting means for the hyperlinking information to TV devices

7   whereby upon successfully processing the broadcast hyperlinking information for display on a

8   TV screen a viewer surfs among the channels specified in the hyperlinking information.

1   40.   A method for surfing hyperlinked information in a TV system, comprising the

2   steps of :

3   a)   forming dynamic correspondence information of TV program categories

4   and TV channels number;

5   b)   creating hyperlinking information which contains a list of channels

6   broadcasting the same nature of program by referencing the correspondence table, and

7   c)   transmitting the hyperlinking information to TV devices whereby upon

8   successfully processing the broadcast hyperlinking information for display on a TV screen a

9   viewer surfs among the channels specified in the hyperlinking information.

1   41.   A receiver for surfing hyperlinked information in a TV system, comprising :

2   a)   storing apparatus, which receives program content including hyperlinks

3   and related channels;

4   b)   classification information in the storing apparatus which relates program

5   content related to related channels; and

6   e)   control apparatus, which enables a viewer to access the classification

7   information and surf among related channels.

1   42.   A method for surfing hyperlinked information in a TV receiver, comprising the

2   steps of:

3   a)   receiving program content including hyperlinks;

4   b)   classifiying received program content in tables according to the same

5   content; and

6   e)   enabling a viewer to access the tables and surf among the related content.

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1   43.   A broadcast server in a TV system, comprising:.

2   a)   correspondence information between TV program categories and TV

3   channels number;

4   b)   creation apparatus which creates hyperlinking information of channels

5   broadcasting the same nature of program categories by referencing the correspondence

6   information, and

7   c)   transmitting apparatus which transmits the hyperlinking information to TV

8   devices whereby upon successfully processing the broadcast hyperlinking information for

9   display on a TV screen, a viewer surfs among the channels specified in the hyperlinking

10   information.

1   44.   A receiver for surfing hyperlinked information in a TV system, comprising:

2   a)   storing apparatus, which receives program content including hyperlinks

3   and related channels;

4   b)   classification information of program content related to the same

5   channels; and

6   e)   control apparatus, which enables a viewer to access the classification

7   information and surf among related channels.